

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for resource allocation in a packet transmission network including at least one link comprising, the following steps:

coordinating functions of Radio Resource Management (RRM) and of Active Queue Management (AQM);

the RRM function detecting link congestion and determining whether to allocate more link capacity; and

allocating more link capacity if possible, otherwise

signaling results of the RRM determination to the AQM function, the AQM function alleviating the link congestion if extra bandwidth is needed or taking no action if extra bandwidth is not needed.

 - ~~determining link resource status;~~
 - ~~if link congestion is determined then~~
 - (a) ~~determining if it is possible to allocate more link capacity;~~
 - (b) ~~allocating more link capacity when it is possible to allocate more link capacity;~~
 - (c) ~~alleviating link congestion using Active Queue Management when it is not possible to allocate more link capacity.~~
2. (Previously Presented) A method for resource allocation according to claim 1, further comprising the steps of
 - defining in a buffer for said at least one link, a congestion threshold for packet queue size within said buffer; and
 - using said congestion threshold to detect link congestion when the packet queue size exceeds said congestion threshold.

3. (Previously Presented) A method for resource allocation according to claim 2, further comprising

- adjusting the congestion threshold depending on link capacity.

4. (Previously Presented) A method for resource allocation according to claim 2 further comprising

- adjusting the congestion threshold depending on whether or not a packet is dropped/marked.

5. (Previously Presented) A method for resource allocation according to claim 2, further comprising

- adjusting the congestion threshold depending on buffer delay for a packet in the queue.

6. (Previously Presented) A method for resource allocation according to claim 2, further comprising

- defining in the buffer a maximum threshold and a minimum threshold for packet queue size within said buffer.

7. (Previously Presented) A method for resource allocation according to claim 1, further comprising

- allocating link capacity by changing from a common channel to a dedicated channel.

8. (Previously Presented) A method for resource allocation according to claim 1, further comprising

- allocating link capacity by changing from a channel with a low bit rate to a channel with a higher bit rate.

9. (Currently Amended) A method for resource allocation according to claim 1, further comprising

- determining cell resource status;
- if cell congestion is detected then

- (a) determining that it is necessary to switch down bit rate ~~or rates~~ in at least one link;
- (b) alleviating link congestion using the Active Queue Management function; and
- (c) switching down said bit rate ~~or rates~~.

10. (Previously Presented) A method for resource allocation according to claim 9, further comprising

- alleviating link congestion for all links.

11. (Currently amended) A method for resource allocation according to claim 9, further comprising

- alleviating link congestion only for the links where link congestion is likely to occur.

12. (Currently Amended) A method according to claim 1, further comprising

- if low usage of a link is detected then
 - (a) determining if it is possible to decrease the link capacity without problems; and
 - (b) allocating less link capacity, when possible.

13. (Previously Presented) A method according to claim 1, further comprising

- alleviating link congestion by dropping or marking packets.

14. (Currently Amended) A method according to claim 2, further comprising

- using the Active Queue Management function separately for each buffer.

15. (Previously Presented) A method according to claim 2, further comprising

- using a general Active Queue Management for a number of buffers; and
- controlling the average traffic in the links associated with said buffers.

16. (Currently Amended) An arrangement for resource allocation in a packet transmission network including at least one link the arrangement comprising:

means arranged for coordinating functions of Radio Resource Management (RRM)
and of Active Queue Management (AQM);

the RRM function being arranged for detecting link congestion and allocating more link capacity if possible; otherwise

means arranged for signaling results of the RRM determination to the AQM function, the AQM function alleviating link congestion if extra bandwidth is needed or taking no action if no extra bandwidth needed.

~~— a resource management arranged to determine link resource status and arranged, if a link congestion status is determined, to determine if it is possible to allocate more link capacity, to allocate more link capacity when it is possible to allocate more link capacity, and to enable alleviation of link congestion using Active Queue Management when it is not possible to allocate more link capacity.~~

17. (Currently Amended) An arrangement for resource allocation according to claim 16, wherein the arrangement includes a buffer for said at least one link, said buffer including a congestion threshold for packet queue size within said buffer, and ~~in~~ that said congestion threshold is arranged to detect link congestion when the packet queue size exceeds said congestion threshold.

18. (Previously Presented) An arrangement for resource allocation according to claim 17, wherein the congestion threshold is arranged to be adjusted depending on the link capacity.

19. (Currently Amended) An arrangement for resource allocation according to claim 17, wherein the congestion threshold is arranged to be adjusted depending on whether ~~or not~~ a packet is dropped or marked ~~dropped/marked~~.

20. (Currently Amended) An arrangement for resource allocation according to ~~claim any of the claims~~ 17, wherein the congestion threshold is arranged to be adjusted depending on buffer delay for a packet in the queue.

21. (Currently Amended) An arrangement for resource allocation according to ~~claim any of the claims~~ 17, wherein the buffer includes a maximum threshold and a minimum threshold for packet queue size within said buffer.

22. (Currently Amended) An arrangement for resource allocation according to claim 16, wherein the RRM resource management is arranged to determine cell resource status, and arranged, if cell congestion is detected, to determine that it is necessary to switch down bit rate or rates in at least one link, to enable to alleviate link congestion using the Active Queue Management function, and to switch down said bit rate ~~or rates~~.

23. (Currently Amended) An arrangement for resource allocation according to claim 16, wherein the RRM resource management is arranged, if low usage of a link is detected, to determine if it is possible to decrease the link capacity without problems, and to allocate less link capacity, when possible.

24. (Currently Amended) An arrangement for resource allocation according to claim 17, wherein the Active Queue Management function is arranged to work separately for each buffer.

25. (Previously Presented) An arrangement for resource allocation according to claim 17, wherein the Active Queue Management function is arranged to work for a number of buffers and to control the average traffic in the links associated with said buffers.